SONY

AUX BUS REMOTE PANEL

BKDS-7080
BKDS-7081

INSTALLATION MANUAL
1st Edition
Serial No. 10001 and Higher: BKDS-7080
Serial No. 10001 and Higher: BKDS-7081

⚠警告

このマニュアルは，サービス専用です。
お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
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⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

⚠AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l'entretien. Afin de réduire les risques de décharge électrique, d'incendie ou de blessure n'effectuer que les réparations indiquées dans le mode d'emploi à moins d'être qualifié pour en effectuer d'autres. Pour toute réparation faire appel à une personne compétente uniquement.

WARNING
This unit has no power switch.
When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power cord to a socket-outlet which must be provided near the unit and easily accessible, so that the user can turn off the power in case a fault should occur.

WARNUNG
Dieses Gerät hat keinen Netzschalter.
Beim Einbau des Geräts ist daher im Festkabel ein leicht zugänglicher Unterbrecher einzufügen, oder das Netzkabel muß mit einer in der Nähe des Geräts befindlichen, leicht zugänglichen Wandsteckdose verbunden werden, damit sich bei einer Funktionsstörung die Stromversorgung zum Gerät jederzeit unterbrechen läßt.

Attention-when the product is installed in Rack:

1. **Prevention against overloading of branch circuit**
   When this product is installed in a rack and is supplied power from an outlet on the rack, please make sure that the rack does not overload the supply circuit.

2. **Providing protective earth**
   When this product is installed in a rack and is supplied power from an outlet on the rack, please confirm that the outlet is provided with a suitable protective earth connection.

3. **Internal air ambient temperature of the rack**
   When this product is installed in a rack, please make sure that the internal air ambient temperature of the rack is within the specified limit of this product.

4. **Prevention against achieving hazardous condition due to uneven mechanical loading**
   When this product is installed in a rack, please make sure that the rack does not achieve hazardous condition due to uneven mechanical loading.

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Manual Structure

Purpose of this manual

This manual is the installation manual of AUX BUS Remote Panel BKDS-7080/7081.
This manual is intended for use by trained system and service engineers, and describes the information when installing BKDS-7080/7081.

Related manuals

The following manuals are prepared for BKDS-7080/7081.

- **Operation Maunal (Supplied with the BKDS-7080/7081)**
  This manual describes the overview, the system configuration examples and the specifications.

- **Maintenance Manual Part 2 Volume 1 (Not supplied with the BKDS-7080/7081) (Block diagrams and frame wirings)**

- **Maintenance Manual Part 2 Volume 2 (Not supplied with the BKDS-7080/7081) (Spare parts and parts replacement)**

- **Maintenance Manual Part 2 Volume 3 (Not supplied with the BKDS-7080/7081) (Semiconductor pin assignments)**

- **Maintenance Manual Part 2 Volume 4 (Not supplied with the BKDS-7080/7081) (Board layouts)**

- **Maintenance Manual Part 2 Volume 5 (Not supplied with the BKDS-7080/7081) (Schematic diagrams 1 A through I)**

- **Maintenance Manual Part 2 Volume 6 (Not supplied with the BKDS-7080/7081) (Schematic diagrams 2 K through Z)**
  These manuals describe the detailed service information.
  For obtaining the Maintenance Manuals Part 2, contact your local Sony sales office/service center.

Contents

This manual is organized by following sections.

Section 1 Installation

This section describes the operating environment, the power supply, the installation space, the cable, the input and output signals of connectors the switch settings on boards and LEDs description and rack mounting.

Section 2 Service Overview

This section describes the removal of Exterior parts.

Section 1
Installation

1-1. Operating Environment

- Install the unit in a well ventilated place to prevent a temperature rise in BKDS-7080/7081.
- Never install BKDS-7080/7081 near a heat source because the environmental temperature during operation should be 5 ˚C to 40 ˚C.

1-2. Power Supply

1-2-1. Power Supply Switch

WARNING

BKDS-7080/7081 has not the power switch.
When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, so that the operator/engineer can turn off the power in case a fault should occur.

1-2-2. Power Specifications

Power requirements: 100 to 240 V AC ± 10%
50/60 Hz
Current consumption: 135 mA (max.)

1-2-3. Power Cord

WARNING

The power cord is not supplied with BKDS-7080/7081. Be sure to use the power cord that is applicable to the places in the world.

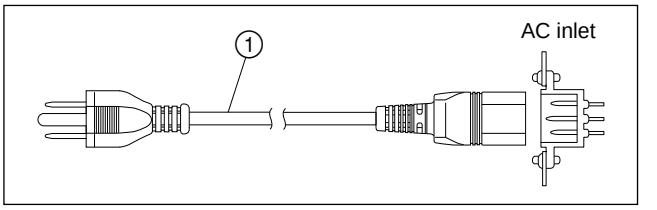
Note

The plug holder is not used for BKDS-7080/7081

For the customer in the U.S.A. and Canada

Required Parts

① Power Cord, 125 V 10 A (2.4 m): 1-557-377-11

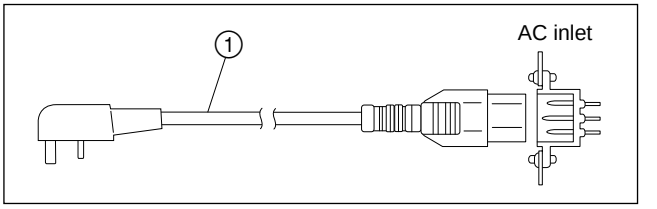


For the customer in the United Kingdom

Required Parts

DK-2401 (EK)

① Power Cord, 250 V 10 A (2.4 m)

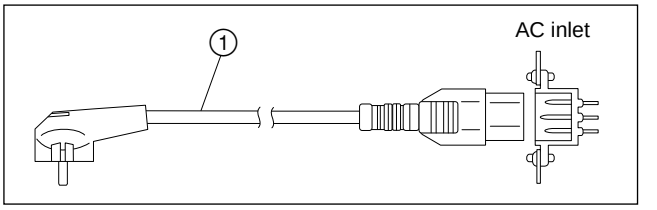


For the customer in the all European countries except the United Kingdom

Required Parts

DK-2401 (AE)

① Power Cord, 250 V 10 A (2.4 m)

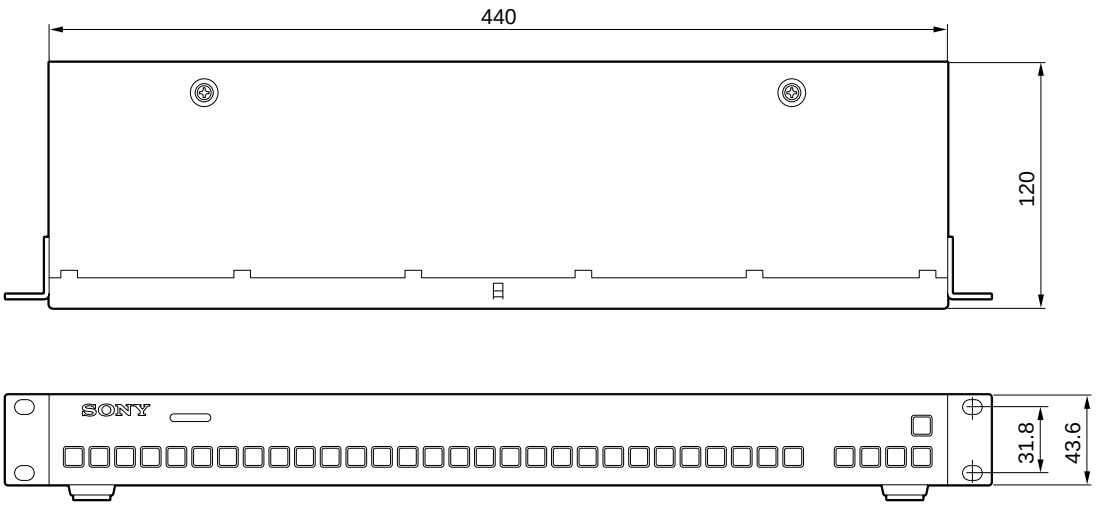


Note

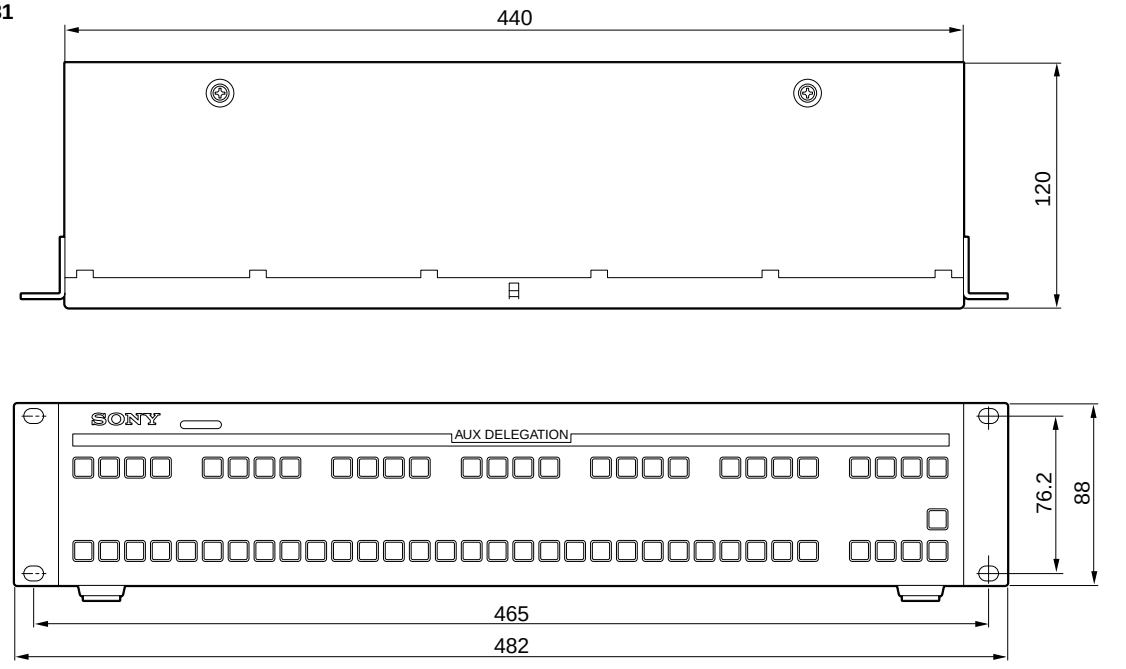
For the customer outside of the area as shown above, please consult with local Sony's sale/service office.

1-3. External Dimensions

BKDS-7080



BKDS-7081



Unit: mm

1-4. Setting of DIP Switches on the Rear Panel

Make a setting of the DIP switches on the rear panel before using this unit.

Note

Do not change settings of the factory-use switches.

Setting of DIP switches
(1) Remove the two screws to remove the switch cover.
(2) Set the DIP swi
tches according to the purpose of your using.

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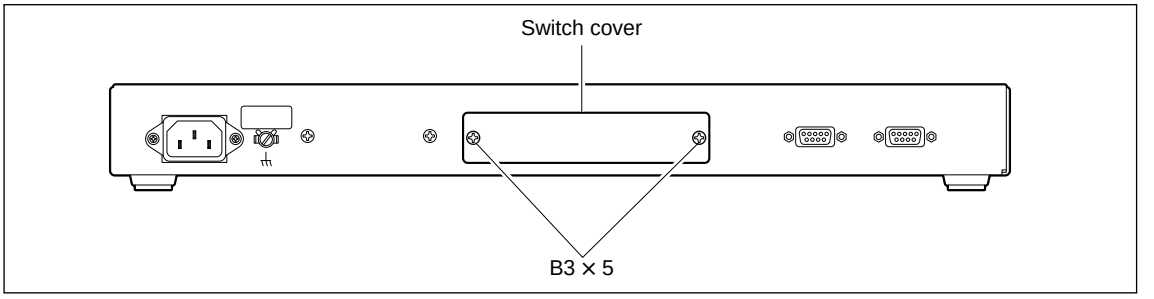
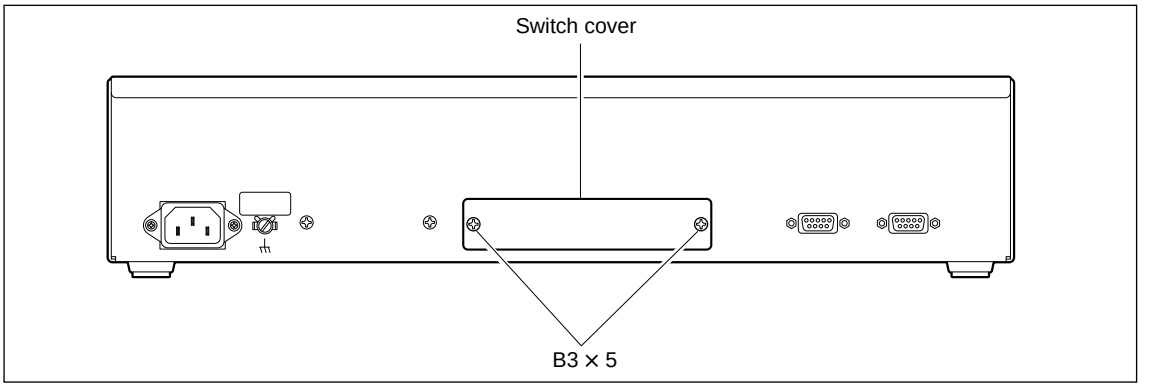
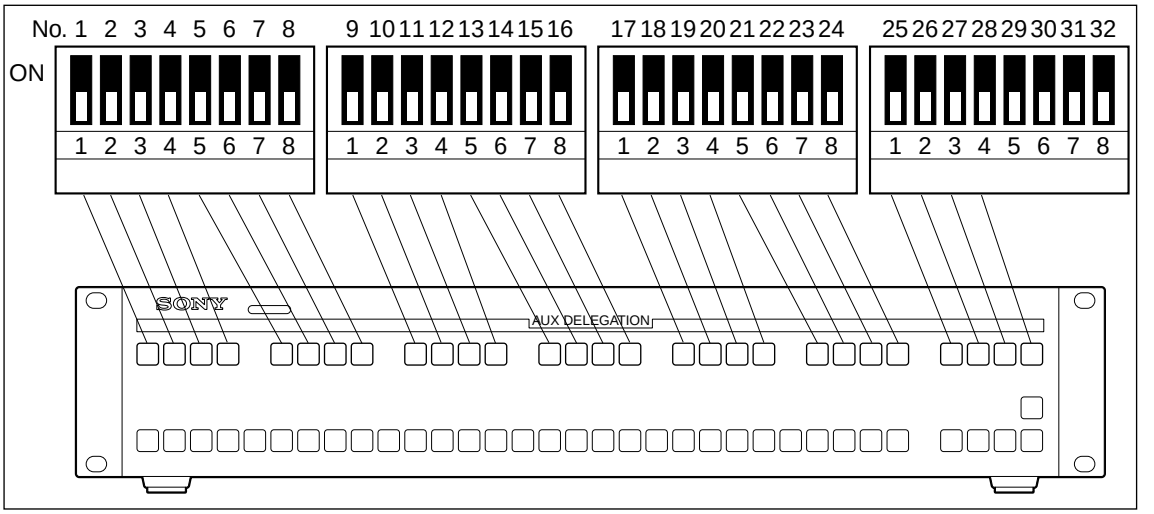


BKDS-7081



Notes

This section describes four eight-series DIP switches assuming that the switches are positioned from the left side No.1 to 32.
The switches No.1 to 28 and No.31 enable setting.



1-4-1. Setting about the Controlled Bus

BKDS-7080

In the case of the standard system:
One bus channel is effective regardless of the state of No.31 switch.
The bus to be controlled is selected by setting a switch out of No.1 to No.28 to ON (the upper position). If a plurality of switches is ON, the switch positioned on the most left side is effective.

In the case of the input expansion system:
Depending on the state of No.31 switch, that is, according to the state No.31 is ON or OFF, the bus correspondent to the switch No.1 to 28 is different, and the bus desired can be selected.

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In the case of the standard system:
One bus channel is effective regardless of the state of No. 31 switch.
Select the AUX delegation key to be made effective by setting the switch ON (the upper position), as the switches No.1 to 28 are correspondent respectively to the AUX delegation keys on the front panel to set effective/non-effective for key operation.

In the case of the input expansion system:
Depending on the state of No.31 switch, that is, according to the state No.31 is ON or OFF, the bus correspondent to the switch No.1 to 28 is different, and the bus desired can be selected.

Correspondence between the switch and bus (In the either case; the standard system or No.31 is OFF in the input expansion system.)

Switch No.	Correspondent Bus
1 to 13	AUX1 to 13
14	EDIT PVW
15 and 16	FM1 and 2
17 to 19	ME1 to 3
20	Factory use
21	ME1, KEY1
22	ME1, KEY2
23	ME2, KEY1
24	ME2, KEY2
25	ME3, KEY1
26	E3, KEY2
27 and 28	Factory use

Correspondence between the switch and bus (In the case that No.31 is ON in the input expansion system.)

Switch No.	Correspondent Bus
1 to 28	AUX1 to 28

Note

- In the 1.5ME system, AUX7 to AUX13, FM1, FM2, ME2 UTIL and ME2 KEY1/2 are not effective, then ME3 UTIL and ME3 KEY1/2 respectively correspond to P/P UTIL and DSK1/2.
- In the 2ME system, ME3 UTIL and ME3 KEY 1/2 respectively correspond to DSK UTIL and DSK1/2.
- In the 2.5 ME system, ME3 UTIL and ME3 KEY 1/2 respectively correspond to P/P UTIL and DSK1/2.
- In the input expansion system, neither ME2 UTIL nor ME UTIL are effective.

1-4-2. Setting about the Shift Button

The combination of the switches No.29 and 30 sets the shift button performance as below.

Switch No.		
29	**30**	**Shift Button Performance**
OFF	OFF	Lock OFF
ON	OFF	Lock ON
ON	ON	Hold
OFF	ON	Shift OFF

Lock OFF

The shift button is not locked. When shifting, press the cross-point button while pressing the shift button.

Lock ON

When pressing the shift button, it is lit up and locked, further more the cross-point button comes to the shifted state.
When the state of the cross-point button is changed by operation of other units except this unit, the state of the shift button is automatically changed as well and the cross-point button of the signal currently selected is lit up.

Hold

The shift button is locked same as in the Lock-ON state, yet even if the state of the cross-point button is changed by operation of other units except this unit, the state of the shift button remains as it is.

Shift OFF

The shift button performs as the cross-point button and the shift functions are not effective.

1-5. Connectors

When connecting cables to various connectors at time of installation, connect the following connectors or their equivalents.

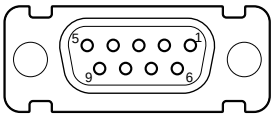
BKDS-7080/7081 side connector		Matching Cable
Connector name	**Connector**	
REMOTE 1	D-sub 9-pin, Female	9-pin remote cable Option: RCC-5G/10G/30G
REMOTE 2	D-sub 9-pin, Female	9-pin remote cable Option: RCC-5G/10G/30G

1-6. Input and Output Signals of Connectors

The input and output signals of the connectors are specified in the following table.

REMOTE 1 : RS-422A (D-sub 9-pin • Female)

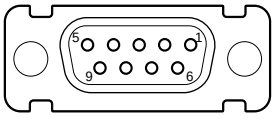
〈**External view**〉



Pin No.	Signal Name	Function
1	GND	Frame ground
2	TX0 (–)	Transmitted data 0 (–)
3	RX0 (+)	Received data 0 (+)
4	GND	Ground
5	——	——
6	GND	Ground
7	TX0 (+)	Transmitted data 0 (+)
8	RX0 (–)	Received data 0 (–)
9	——	——

REMOTE 2 : RS-422A (D-sub 9-pin • Female)

〈**External view**〉



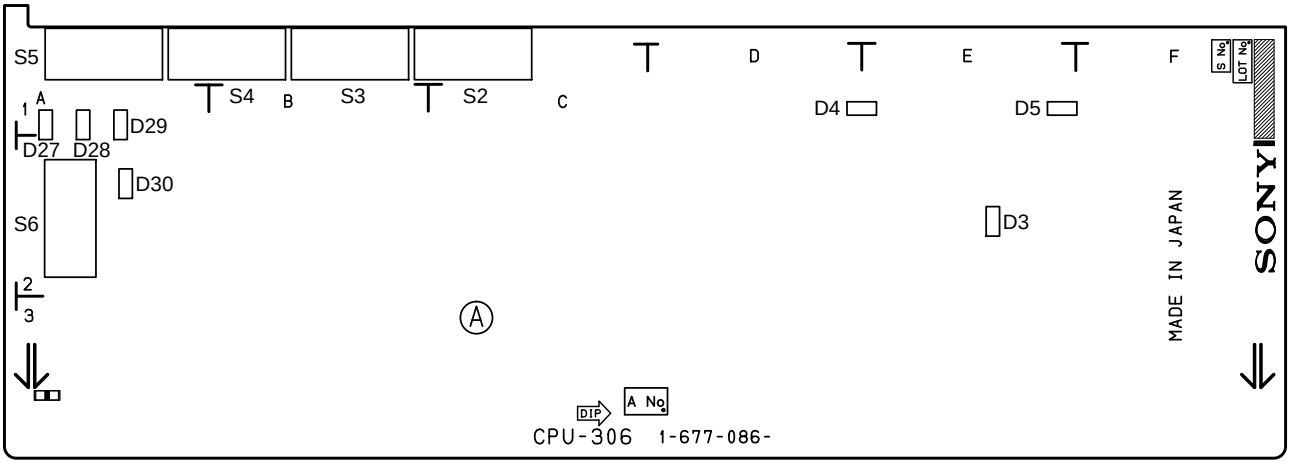
Pin No.	Signal Name	Function
1	GND	Frame ground
2	RX0 (–)	Received data 0 (–)
3	TX0 (+)	Transmitted data 0 (+)
4	GND	Ground
5	——	——
6	GND	Ground
7	RX0 (+)	Received data 0 (+)
8	TX0 (–)	Transmitted data 0 (–)
9	——	——

1-7. Switch Settings on Boards and LEDs Description

Note

Do not change settings of the factory-use switches.

CPU-306 board switch



CPU-306 board (A side)

BKDS-7080

Ref No.	bit	Name	Function	Factory setting
S2	1	DIP switch	Refer to Section 1-4.	ON
	2 to 8	DIP switch	Refer to Section 1-4.	OFF
S3	1 to 8	DIP switch	Refer to Section 1-4.	OFF
S4	1 to 8	DIP switch	Refer to Section 1-4.	OFF
S5	1 to 6	DIP switch	Refer to Section 1-4.	OFF
	7, 8	DIP switch	Factory use	OFF
S6	1 to 8	DIP switch	Factory use	OFF

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Ref No.	bit	Name	Function	Factory setting
S2	1 to 8	DIP switch	Refer to Section 1-4.	ON
S3	1 to 8	DIP switch	Refer to Section 1-4.	ON
S4	1 to 8	DIP switch	Refer to Section 1-4.	ON
S5	1 to 4	DIP switch	Refer to Section 1-4.	ON
	5, 6	DIP switch	Refer to Section 1-4.	OFF
	7, 8	DIP switch	Factory use	OFF
S6	1 to 8	DIP switch	Factory use	OFF

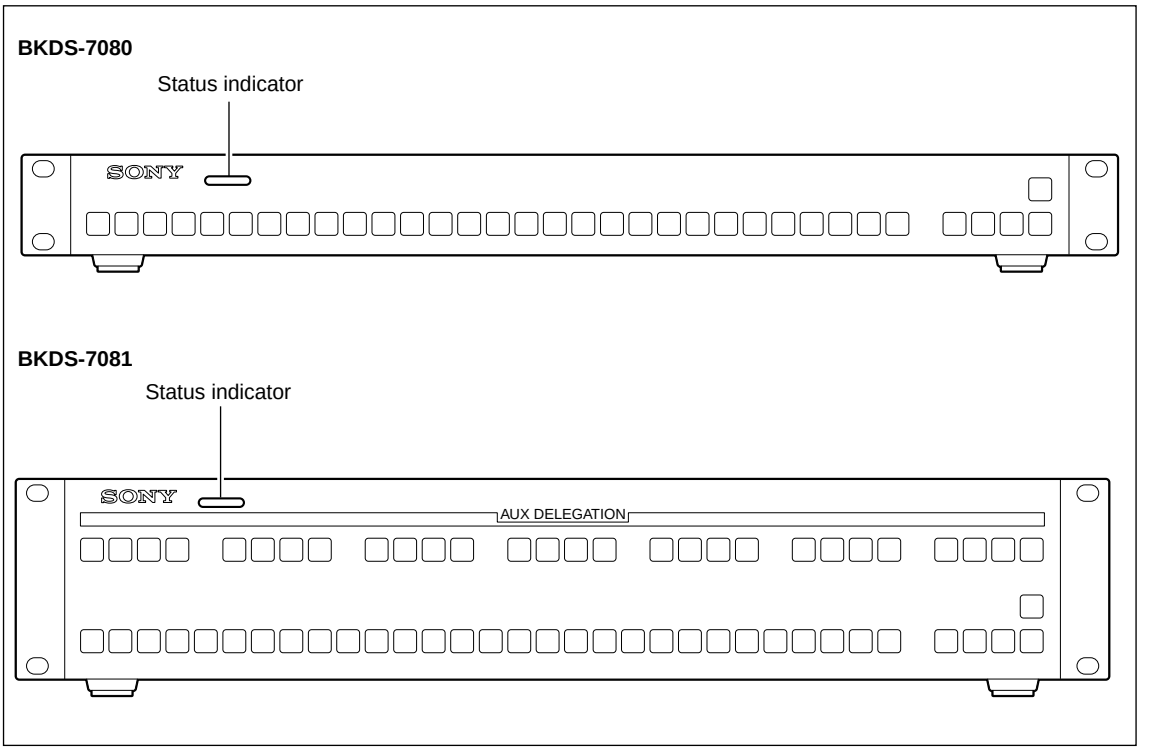
Diode

Ref No.	Name	Function
D3	BERR LED	This LED lights when the CPU BUS error occurs
D4	RESET LED	This LED lights when the CPU is reset
D5	HALT LED	This LED lights when the CPU stops
D27 to D30	Debug LED	Factory use

1-8. Status Indicator

The satus indicator shows the status by its color.

- Lighitingup in red: ON-air tally
- Lighitingup in green: non-connection of a processor
- Blinking in green: non-setting of DELEGATION (DIP switches for DELEGATION selecting are all OFF.)



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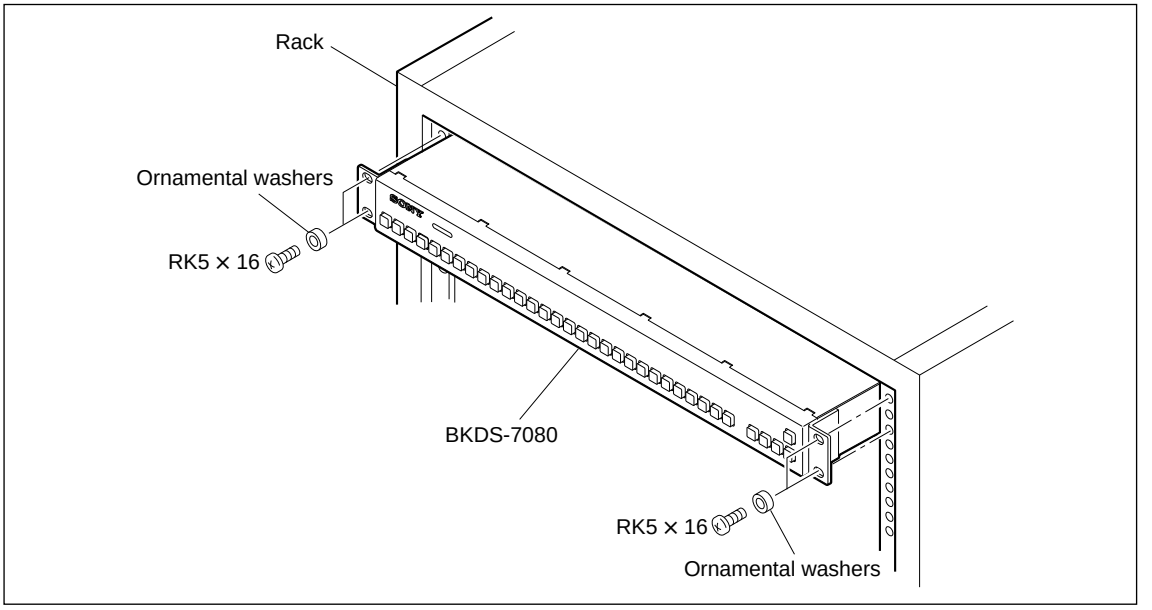
1-9. Rack Mounting

<Required parts>
- Screw for rack mounting (RK5 × 16): 4pcs
- Ornamental washer for rack mounting: 4pcs
  (Sony part number: 2-297-913-01)

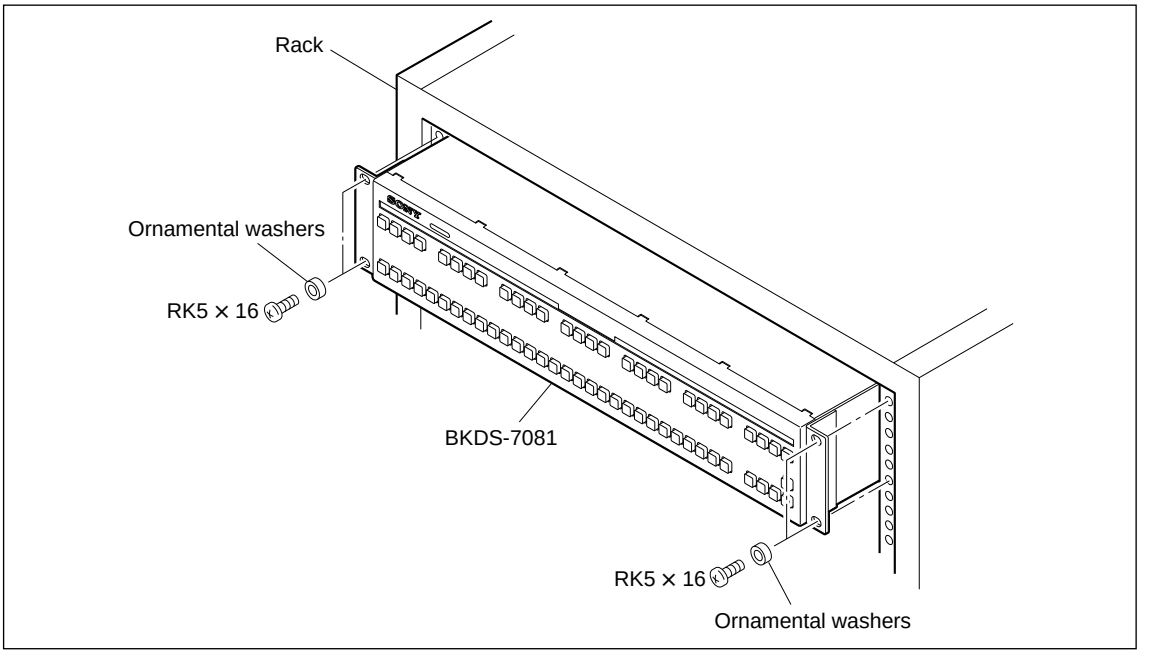
Rack Mounting

Secure the unit to the rack by the four screws (RK5 × 16) and ornamental washers for rack mounting (RK5 × 16).

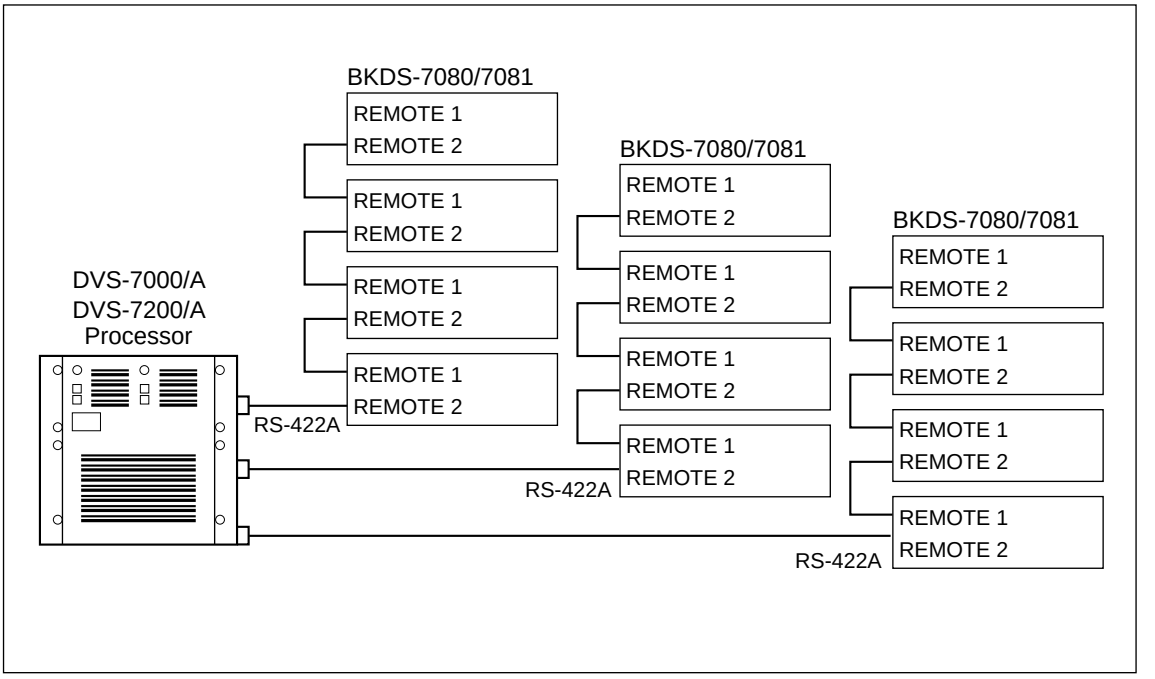
BKDS-7080



BKDS-7081



1-10. System Connection



Notes

- An identical system connection is applied to both BKDS-7080 and BKDS-7081.
- DME1 to 4 and REMOTE1 to 3 can be used as a processor RS-422 port.
- The cascade connection allows one port to connect with 4 units at maximum.

Section 2
Service Overview

2-1. Removal of Exterior Parts

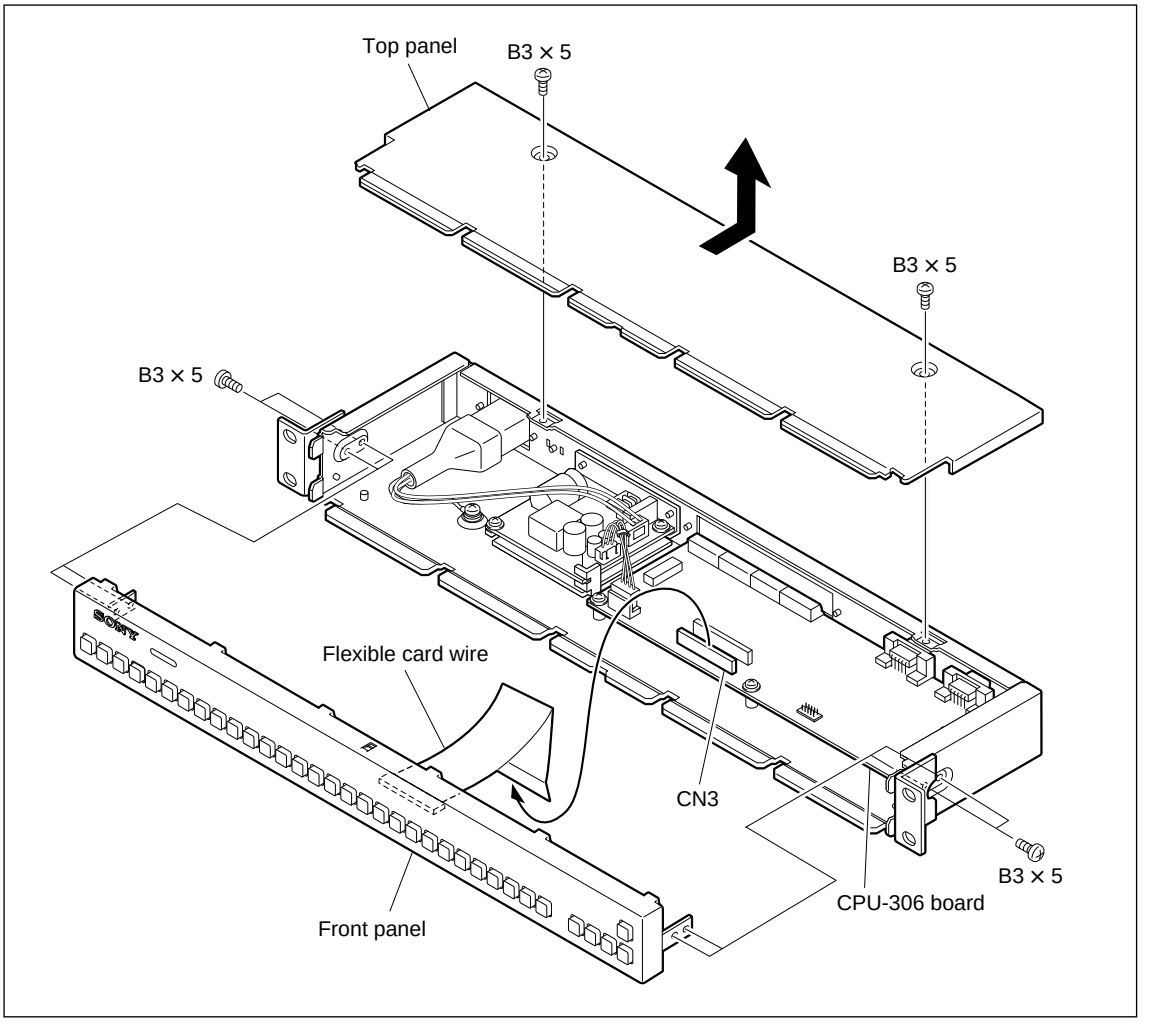
WARNING

To avoid shock hazards and/or damage to the mounted circuit boards, be sure to turn off the breaker at the outside of BKDS-7080/7081 or unplug the power cord before removing the exterior parts.

2-1-1. BKDS-7080

Removal/reattachment of Front Panel

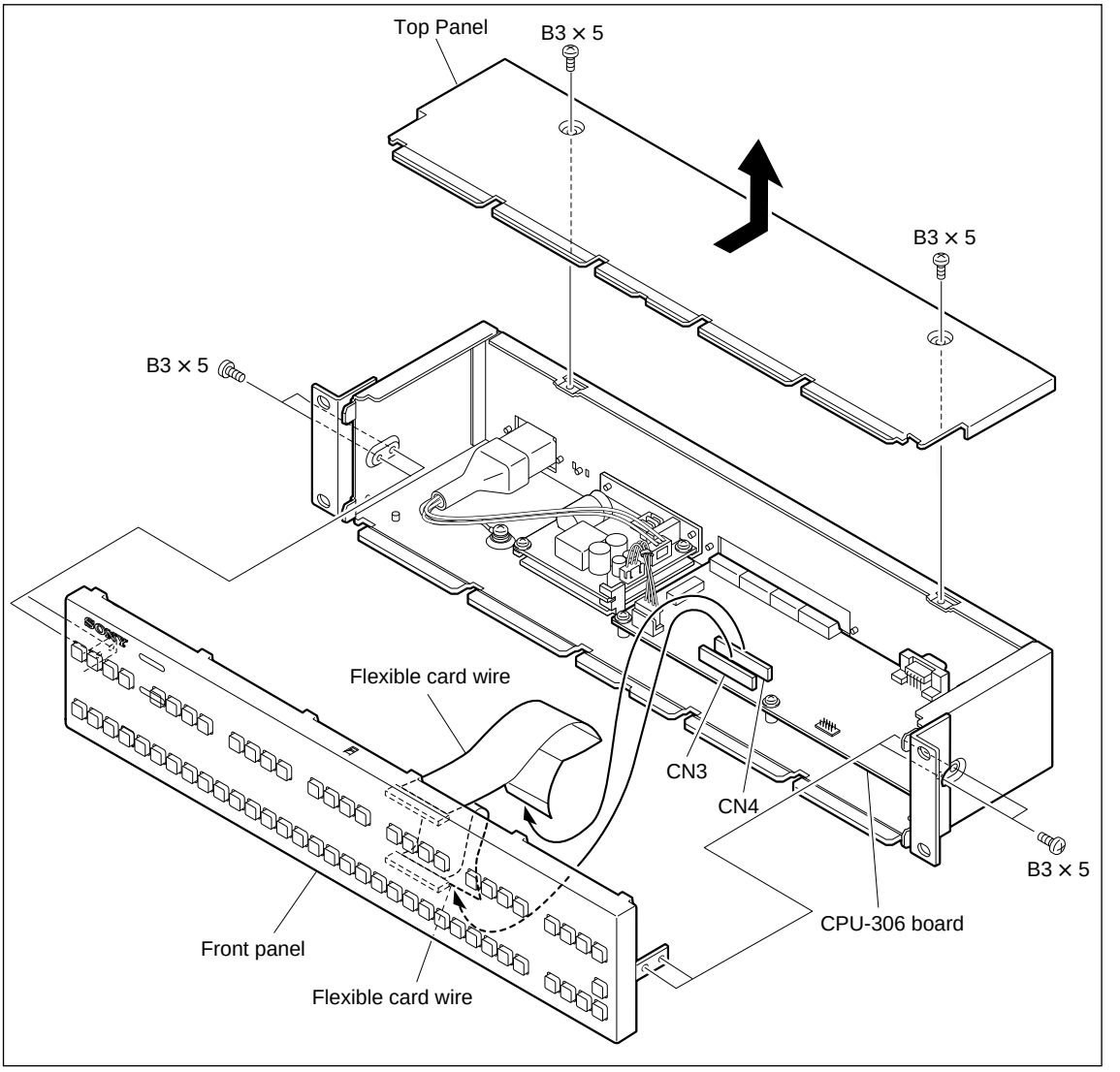
(1) Remove the two screws and remove the top panel in the arrow direction.
(2) Disconnect the flexible card wire from the connector (CN3) on the CPU-306 board.
(3) Remove the four screws and remove the front panel.
(4) Reattach the front panel in the reverse order of removing steps (1) to (3).



2-1-2. BKDS-7081

Removal/reattachment of Front Panel

(1) Remove the two screws and remove the top panel in the arrow direction,.
(2) Disconnect the two flexible card wires from the connectors (CN3, CN4) on the CPU-306 board.
(3) Remove the four screws and remove the front panel.
(4) Reattach the front panel in the reverse order of removing steps (1) to (3).



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BKDS-7080 (SY)
BKDS-7081 (SY) J, E
3-204-013-01

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Printed in Japan
2000. 1 08
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